QUESTIONS

1. Clarity, density, and luster are examples of this.
2. An item that you cannot see through and therefore cannot transmit light is called this.
3. The magic triangle for calculating mass, density, and volume looks like this.
4. Iron + oxygen iron oxide

is the chemical equation that shows this chemical property.

1. The Archimedes Principle is used to calculate this.
2. There are 6 families on the periodic table, name them and then describe how the reactivity changes as you move down each family?

ANSWERS

1. Physical properties
2. Opaque
4. Corrosion (rust = iron oxide)
5. The density of an irregular shape
6. Hydrogen, alkali metals, alkali earth metals, metalloids, halogens, and noble gases; reactivity increases as you go down the families because the electrons are further from the nucleus

QUESTIONS

1. What are the four states of matter?
2. All matter has these two things in common.
3. The simplest particle that all matter is made from.
4. Water can transition through all 3 states of matter in these ways.
5. The particle theory of matter describes these characteristics of solids, liquids, and gases.
6. A graduated cylinder contains 31.5mL of water. When you place a rock in the cylinder the volume increases to 40.5. The mass of the rock is 27g. What is the density of the rock?



ANSWERS

1. Solid, liquid, gas, and plasma
2. Mass and volume
3. Atom
4. Liquid to solid is freezing (solidification), solid to liquid is melting (fusion), liquid to gas is evaporation (vapourization), and gas to liquid is condensation, and solid to gas and vice versa is sublimation
5. Particles in solids are close together with very little space between the particles and therefore have a strong attraction to each other, little movement therefore little energy, they hold their shape. Particles in a liquid are father apart and therefore have more energy and less attraction between the particles, they take the shape of the container they are in, particles of a gas are very far apart and therefore there is a lot of energy but little attractive forces between the particles and they occupy the volume of the container they are placed in.
6. 3g/cm3

QUESTIONS

1. The control in the experiment does this.
2. The independent variable can be described as this.
3. When stating a hypothesis you use these words to create the hypothesis statement.
4. Identify the dependent, independent variables, and control in the following experiment. Plants need light to grow. You test this by putting a bunch of plants from one species known to require light to grow in different amounts of light.
5. A scientist wants to test the effectiveness of a new drug to treat multiple sclerosis. Design an experiment by giving the dependent and independent variables, and the control.
6. When graphing for density you use these as your x and y axis and you draw the line of best fit to find this.

ANSWERS

1. Stays the same/is used as a comparison
2. The INPUT/ what you are putting in to the experiment or changing
3. If…then…because….
4. independent – plant growth, dependent- that plants need light to grow, and control- same species of plant
5. Dependent- effectiveness of the drug, independent- new drug, and the control is a placebo to which the drug is compared (sugar pill)
6. Mass on the y axis and volume on the x axis showing mass over volume which is used to calculate density



QUESTIONS

1. What do WHMIS and HHPS stand for?
2. What does a diamond shape indicate on a safety symbol?
3. What is the chemical symbol of Magnesium?
4. When drawing a Bohr-Rutherford diagram the 1st, 2nd, and 3rd orbits can contain this amount of electrons.
5. Draw the Bohr diagram for an atom of carbon.
6. If a stable element has the atomic number 9 and the atomic mass of 19 then how many protons, neutrons, and electrons does it have?



ANSWERS

1. WHMIS-workplace hazardous materials information system
2. Warning
3. Mg
4. 2, 8, 8
5. See Mrs. L for this answer
6. Protons-9, electrons-9, and neutrons-10